U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

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PRECIOUS METALS IN AUGUST 1996

Domestic

U.S. mines produced 27,400 kilograms of gold and 132,000 kilograms of silver in August.

Sunnyside Gold Corp., a subsidiary of Echo Bay Mines, Englewood, CO, filed a final consent decree in Denver District Court to resolve a 1994 lawsuit against the State of Colorado's Department of Public Health and Environment. The dispute focused on the company's plan for complete closure of its Sunnyside polymetallic gold and silver mine near Silverton, CO. The agreement will maintain and improve the water quality in the Upper Animas River Basin in southwestern Colorado by removing historic waste/tailings from abandoned mine sites outside the Sunnyside property. The settlement will also work toward remediating long-abandoned mine sites that are the source of leached metals. In turn, the State of Colorado will remove objections to Sunnyside Gold's final reclamation plan at the Sunnyside mine site. The State had sought to hold Sunnyside Gold Corp. liable for restoring pre-mining groundwater conditions, including potential discharges from naturally occurring seeps/springs.

Crown Butte Resources Ltd., Toronto, ON, Canada, announced on August 12 that it had agreed suspend to permitting activities at its New World mine development project in Montana, while it finalizes an alternative development agreement with the U.S. Government. Several environmental groups had vigorously claimed that the proposed gold-silvercopper mine near Yellowstone National Park was a significant threat to the surrounding environment (See Precious Metals MIS, May 1996). The announced agreement provides for the exchange of the company's New World mining project interests for other Federal property worth up to \$65 million, located in a less environmentally sensitive area. Under the agreement, the U.S. Government must identify "exchange property" acceptable to Crown Butte as expeditiously as possible and, in addition, there should be "good faith" actions to implement and resolve all remaining issues related to the New World mine development project.2

In an August 19 press release, Echo Bay Mines, Englewood, CO, announced that it planned to establish a special allocation of up to \$30 million in the third quarter of 1996 for the estimated costs of removing up to 27 million metric tons of waste rock from an unstable portion of the Cove pit at the company's McCoy/Cove gold and silver mining property in central Nevada. The unstable northwestern sector of the pit wall reportedly has had no effect on mine production or the current reserves at the Cove open-pit mine. Existing ore stockpiles of 4.1 million tons, together with ore scheduled to be mined from other areas of the Cove pit, were believed to be sufficient to provide an adequate supply of ore until the company completes a planned stabilization program for the unstable portion of the pit wall. The removal effort was expected to take place in 1997 and 1998 following completion of the stabilization plan, which was scheduled for early 1997. Echo Bay stated that upon completion of the removal program, mining would recommence in the affected area of the Cove pit.

International

A State royalty on mined gold reportedly is being discussed in the State of Western Australia. The Western Australian Minister for Resources, Development and Energy, Colin Barnett, recently indicated that in principle he supports such a gold royalty. Royalties are currently payable on all other mineral production in Western Australia. Mr. Barnett noted that any State royalty should be phased in gradually, with possible exemptions for small or low-grade gold operations. Royalties, either on profits or on the post-mine value of production, are payable on gold mining operations in several other Australian States.³

In a joint announcement with Corporación Venezolana de Guyana (CVG), Placer Dome (70% owner) stated that contingent on completion of a financing and risk management plan, it would spend \$536 million to develop the long-delayed mining project at the Las Cristinas gold and copper property in southeastern Venezuela (*See Update section of Precious Metals MIS, March 1996*). The mining operation is projected to produce an average of 14,000 kilograms (450,000 troy ounces) of gold per year for a minimum of 16 years.⁴

Toronto-based TVX Gold, Inc. indicated on August 7 that the Greek parliament had ratified the purchase contract for its acquisition of the Kassandra Mines project in northeastern Greece (*See Precious Metals MIS*, *December 1995*). The parliamentary bill provided for the ratification of development grants and timely issuance of all permits for the mining operations.⁵

Newcrest Mining Ltd., Melbourne, VIC, Australia, recently stated that it had made a pre-tax profit of \$209 million (A\$270 million) from the liquidation of nearly 75% of its 84,000-kilogram (2.7-million-ounce) gold hedging position. This transaction has resulted in the company being well positioned to develop its \$325 million (A\$420 million) Cadia gold and copper property in New South Wales, Australia.⁶

Acacia Resources, Melbourne, VIC, Australia, reportedly has commenced development of its 3,110-kilogram-per-year (100,000-ounce-per-year) Sunrise Dam open-pit gold mine in central Western Australia.⁷

In an August 16 news release, Da Capo Resources Ltd., Vancouver, BC, Canada, announced that a definitive merger agreement had been signed between Da Capo Resources Ltd. and Granges Inc., together with the issuance of a letter of support from Granges' principal shareholder, Atlas Corp. The corporate consolidation will form a mid-tier gold producer with substantial gold ore reserves and a portfolio of gold properties in North America and South America.

In addition, Glamis Gold Ltd., another Vancouver-based company, announced in an August 19 news release that it had entered into a joint-venture agreement with Paramount Ventures & Finance Inc., of Vancouver, covering the Gunung Pani gold prospect on Sulawesi Island, Indonesia.

The directors of Vancouver-based Arequipa Resources voted to accept an increased offer from Barrick Gold Corp., Toronto, ON, Canada, to acquire all of Arequipa's issued common shares at \$21.90 (\$C30.00) per share (See Update section of Precious Metals MIS, June 1996). The proposal, which offered shareholders a share and cash option as well as an all cash option, valued the small exploration company at \$810 million (C\$1.1 billion). Arequipa's principal asset is the promising

Pierina gold deposit in Peru. The deposit's resources are presently estimated at approximately 109,000 kilograms (3.5 million ounces) of contained gold, and Arequipa executives say that the deposit has the potential to contain 311 to 373 tons (10 to 12 million ounces) of gold.⁸

Cia. Vale do Rio Doce (CVRD), Brazil's large integrated mining enterprise, announced plans to construct a gold refinery in northern Pará State by the year 2000. The facility would be used to refine the output from CVRD's gold and copper mining operations in northern Brazil, plus gold from independent sources.⁹

The South African mining house, Anglovaal, plans to develop two new gold mines on the Sun prospect in the Orange Free State, South Africa, to replace declining output from its Hartebeestfontein gold mine. Hartebeestfontein currently produces approximately 28,000 kilograms (900,000 ounces) of gold annually but has an estimated operational expectancy of less than 10 years.¹⁰

In 1997, when gold production is scheduled to commence on Lihir Island in Papua New Guinea, the site of one of the world's largest undeveloped gold deposits, several significant mining engineering challenges will have to be overcome (See Precious Metals MIS, February 1996). The Lihir deposit contains an estimated 435,000 kilograms (14 million ounces) of gold reserves and 1,310,000 kilograms (42 million ounces) of gold resources within the partially submerged crater of a volcanic island. Nowhere else in the world has any mining company attempted to mine an active geothermal system immediately adjacent to an ocean. The proposed mine plan calls for the development of two open pits which will eventually merge into a 2-square-kilometer mining area. It is anticipated that significant amounts of groundwater will have to be dealt with during the mining operations because the average rainfall on the island is 4 meters per year. This is in addition to a possible influx of sea water that may flow through the very permeable altered volcanic host rocks of the ore deposit. The most problematic situation for the mining engineers, however, will be the active geothermal areas where boiling water and steam will be encountered by the mining operations. Approximately one-quarter of the rock to be mined will have a temperature of more than 100° C (212° F) with a top temperature of about 140° C (284° F). These conditions will require a complex system of wells to remove hot water and to act as vents to relieve pressure from the geothermal generated steam and gases. At present, the projected annual cost for well installation and operations range from \$2 million in the initial years to \$5 million as mining proceeds to deeper levels.¹¹

Battle Mountain Gold Co., Houston, TX, and Normandy Mining Ltd., Adelaide, SA, Australia, reportedly have begun development work at the high-grade Vera-Nancy gold project near the Pajingo complex in Queensland, Australia. The mine development program calls for a small 50-meter (165-foot)-deep open pit at the Vera deposit, and the establishment of

underground access to the Vera North and Nancy veins from both the new Vera pit and the recently depleted nearby Cindy underground workings.¹²

Update

In a September 5 news release, Hecla Mining Co., Coeur d'Alene, ID, announced that operations at the American Girl Joint Venture gold mine would be suspended in the near future by MK Gold Co., Salt Lake City, UT, the operator and 53% interest holder in the joint venture. The American Girl gold mine is located in Imperial County, California, approximately 35 kilometers west of Yuma, Arizona. Mining and milling operations will continue until the accessible underground and open-pit ores are depleted. The remaining Oro Cruz ore reserves are considered not economically recoverable because of high development and stripping costs. Limited gold production will reportedly continue into 1998, as ore heaps are leached during the mine reclamation period.

Randgold Exploration & Resources, the exploration subsidiary of South African mining group Randgold, has purchased Broken Hill Proprietary's (BHP) 65% share of the Syama gold operation in Mali at a reported cost of approximately \$84 million. The Syama gold mine is the second-largest gold producer in West Africa. Randgold also gained a 20% stake, with a further 31% option, in BHP's Loulo exploration property, which is currently undergoing a prefeasibility study.¹³

The Meikle gold mine, whose expected annual output of 12,400 kilograms (400,000 ounces) of gold will make it the largest underground gold producer in the United States, was officially opened on September 21 by Toronto-based Barrick Gold Corp. Meikle is the second gold mine to be opened on the Goldstrike property along north-central Nevada's Carlin Trend, and has estimated gold reserves of 205,000 kilograms (6.6 million ounces). Betze-Post, Barrick's open-pit operation on the site, reportedly has reserves of 725,000 kilograms (23.3 million ounces) of gold for a total gold reserve at the Goldstrike property of 930,000 kilograms (29.9 million ounces).¹⁴

A dispute has arisen regarding ownership of the Busang gold project in Kalimantan, Indonesia (See Update section of Precious Metals MIS, December, 1995). The disagreement now has extended to Australia as Golden Valley Mines NL, Perth, WA, Australia, reported that it had made an agreement with PT Krueng Gasui, the local Indonesian company at the center of the squabble. The dispute was originally the result of claims by PT Krueng Gasui, which holds 10% of the Busang I portion of the project, that it is also entitled to a 10% share in Busang II and III. Busang I, the original gold discovery, contains only 6% of the total gold resource of 1.46 million kilograms (47 million ounces) of gold currently estimated for the Busang project area.¹⁵

In an October 22 new release, Newmont Gold Co., Denver, CO, and Barrick Gold Corp.'s U.S. subsidiary announced the

settlement of their dispute over water disposal on the Carlin Trend in north-central Nevada. The agreement provides for construction of a water treatment facility and conveyance system to be built by Barrick across Newmont property in Boulder Valley. The project, which reportedly has received the necessary environmental approvals, will discharge treated water into the Humboldt River. Newmont has the right under the agreement to use up to half of the discharge system's capacity, in later years, in exchange for payment of designated capital and operating costs. As a result of this agreement, litigation between the two companies has been dismissed. Barrick will reimburse Newmont's legal costs and convey to Newmont a property contiguous to Newmont's Deep Star underground mine estimated to contain a resource of 4,670 kilograms (150,000 ounces) of gold.

Publications on the Internet

Monthly, quarterly, and annual Minerals Information publications are now available through the World Wide Web (www). These publications include the Mineral Commodity Summaries, Minerals Yearbook, Mineral Industry Surveys, and Metal Industry Indicators. To access Minerals Information publications, visit the Minerals Information home page at http://minerals.er.usgs.gov/minerals.

¹Enginerring & Mining Journal. This Month in Mining. V. 197, No. 8, Aug. 1996, pp. 32, 53.

²American Metal Market. Crown Butte Barters Deal To Kill Mine. V. 104, No. 157, Aug. 14, 1996, p. 2.

³Mining Journal (London). Call for Gold Royalty in W.A. V. 327, No. 8389, Aug. 2, 1996, p. 83.

⁴American Metal Market. Placer Dome Digs Up \$536 for Gold Mine. V. 104, No. 150, Aug. 5, 1996, pp. 1-2.

⁵American Metal Market. TVX Kassandra Project Gets OK. V. 104, No. 153, Aug. 8, 1996, p. 1.

Platt's Metals Week. Newcrest Liquidates 2-Mil Oz of Gold Hedge. V. 67, No. 33, Aug. 12, 1996, p. 12.

 $^{^{7}\!}Metal$ Bulletin. Acacia Begins Development of Sunrise Dam. No. 8104, Aug. 15, 1996, p. 7.

⁸American Metal Market. Arequipa Buyout Will Give Barrick Needed Reserve Boost. V. 104, No. 161, Aug. 20, 1996, p. 2.

^{9———.} CVRD Plans to Build Gold Refinery in Para. V. 104, No. 162, Aug. 21, 1996, p. 5.

Metal Bulletin. Anglovaal Goes for Free State Gold. No. 8106, Aug. 22, 1996, p. 8.

¹¹Financial Times. Gold Lures Miners into the Shadow of the Volcano. Aug. 22, 1996, p. 18.

¹²American Metal Market. Vera-Nancy Development Begins. V. 104, No. 169, Aug. 30, 1996, p. 5.

¹³Platt's Metals Week. Randgold Acquires BHP Gold Production in Mali. V. 67, No. 37, Sept. 9, 1996, pp. 11-12.

^{107,} No. 37, Sept. 9, 1990, pp. 11-12.

14———. Barrick Opens Largest U.S. Underground Gold Mine. V. 67, No. 38, Sept. 23, 1996, pp. 11-12.

¹⁵Mining Journal, London. Busang Dispute Widens. V. 327,No. 8400, Oct. 18, 1996, pp. 297-298.

TABLE 1
MINE PRODUCTION OF RECOVERABLE GOLD AND SILVER IN THE UNITED STATES, BY STATE 1/

(Kilograms)

Idaho					1995 p/				1996 p/
Arizona 1,920 2,59 2,55 2,31 2,35 2,33 2,780 2,36 California 26,200 1,630 1,480 1,520 1,940 1,730 20,200 2,110 r/	States	1995 2/	August	September	October	November	December	Jan Dec.	January
California 26,200	Gold:								
Holaho	Arizona	1,920	259	255	231	235	233	2,780	236
Montana	California	26,200	1,630	1,480	1,520	1,940	1,730	20,200	2,110 r/
Nevada	Idaho	8,850	236	240	236	261	277	3,000	W
Other States 3/ S8,000 S,340 4,630 4,160 3,850 4,310 51,500 4,990 r/ Total 320,000 26,900 26,500 26,600 27,800 27,300 313,000 23,600 r/ February	Montana	12,400	1,390	1,230	1,420	1,350	894	13,600	791 r/
Total 320,000 26,900 26,500 26,600 27,800 27,300 313,000 23,600 r/	Nevada	213,000	18,100	18,700	19,000	20,200	19,900	222,000	15,400 r/
February March April May June July r/ August Jan Aug.	Other States 3/	58,000	5,340	4,630	4,160	3,850	4,310	51,500	4,990 r/
Pebruary March April May June July r/ August Jan Aug.	Total	320,000	26,900	26,500	26,600	27,800	27,300	313,000	23,600 r/
Arizona 229 178 161 168 117 118 103 1,310					1996 p	/			
California 1,940 r/ 2,210 r/ 2,250 r/ 2,170 r/ 2,210 r/ 2,080 1,880 16,800 1,840		February	March	April	May	June	July r/	August	Jan Aug.
Idaho	Arizona	229	178	161	168	117	118	103	1,310
Montana 642 r/	California	1,940 r/	2,210 r/	2,250 r/	2,170 r/	2,210 r/	2,080	1,880	16,800
Nevada 16,000 r/ 17,400 r/ 16,400 r/ 18,100 r/ 17,500 r/ 19,000 19,200 139,000	Idaho	W	W	W	W	W	W	W	W
Other States 3/	Montana	642 r/	836 r/	968 r/	959 r/	703 r/	988	988	6,870
Total 23,500 r/ 25,900 r/ 24,800 r/ 26,300 r/ 25,500 r/ 27,100 27,400 204,000	Nevada	16,000 r/	17,400 r/	16,400 r/	18,100 r/	17,500 r/	19,000	19,200	139,000
1995 p/ 1995 p/ 20,000 16,000 14,800 15,900 15,600 16,700 172,000 14,900 16,000 14,800 15,900 15,600 16,700 172,000 14,900 16,000 14,800 15,900 12,100 12,100 14,000 12,100 14,000 16,000 170,000 14,000 14,000 12,000 12,100 14,000 16,000 14,000 12,000 12,100 14,000 14,000 16,000 14,000 12,000 16,000 14,100 16,00	Other States 3/	4,680 r/	5,220 r/	5,040 r/	4,860 r/	4,960 r/	4,990	5,220	40,000
November December Jan Dec. January	Total	23,500 r/	25,900 r/	24,800 r/	26,300 r/	25,500 r/	27,100	27,400	204,000
Silver: Arizona 220,000 16,000 14,800 15,900 15,600 16,700 172,000 14,900 14,900 16,000 14,900 12,700 182,000 17,000 15,000 14,900 12,400 12,700 161,000 14,100 14,000 15,000 15,000 15,000 15,000 15,000 15,000 15,800 15,800 15,800 15,800 15,800 15,800 15,800 15,800 15,800 15,800 15,800 15,800 15,800 15,800 15,800 15,800 15,800 10,9					1995 p/				1996 p/
Arizona 220,000 16,000 14,800 15,900 15,600 16,700 172,000 14,900 14,900 12,100 12,100 12,100 14,900 14,000		1995 2/	August	September	October	November	December	Jan Dec.	January
California 12,700 978 888 996 1,220 1,200 12,100 1,460 f/r Idaho 182,000 17,000 15,000 14,900 12,400 12,700 161,000 14,100 f/r Montana 76,100 7,230 6,910 6,630 7,360 6,780 75,800 5,820 f/r Nevada 766,000 73,900 68,900 56,200 49,000 54,800 653,000 42,700 Other States 4/ 380,000 38,600 f/ 32,900 f/ 26,400 f/ 24,300 f/ 28,800 f/ 382,000 f/ 30,400 f/ Total 1,640,000 154,000 139,000 121,000 110,000 121,000 1,460,000 109,000 f/ February March April May June July f/ August Jan Aug. Arizona 16,500 13,100 14,700 15,200 12,100 13,800 13,400 114,000 California 1,440 r/ 1,520 r/ W 1,990 r/	Silver:								
Idaho	Arizona	220,000	16,000	14,800	15,900	15,600	16,700	172,000	14,900
Montana 76,100 7,230 6,910 6,630 7,360 6,780 75,800 5,820 r/ Nevada 766,000 73,900 68,900 56,200 49,000 54,800 653,000 42,700 Other States 4/	California		978	888	996	1,220	1,200	12,100	1,460 r/
Nevada 766,000 73,900 68,900 56,200 49,000 54,800 653,000 42,700 Other States 4/	Idaho	182,000	17,000	15,000	14,900	12,400	12,700	161,000	14,100 r/
Other States 4/ 380,000 38,600 r/ 32,900 r/ 26,400 r/ 24,300 r/ 28,800 r/ 382,000 r/ 30,400 r/ Total 1,640,000 154,000 139,000 121,000 110,000 121,000 1,460,000 109,000 r/ Arizona 16,500 13,100 14,700 15,200 12,100 13,800 13,400 114,000 California 1,440 r/ 1,520 r/ W 1,990 r/ 1,570 r/ 1,990 1,470 11,400 Idaho 14,800 r/ 16,600 r/ 11,300 r/ 16,700 r/ 16,300 r/ 15,700 15,700 121,000 Montana 5,140 r/ W W W W W W W 11,000 Nevada 42,600 44,000 39,800 49,400 57,700 52,100 55,900 384,000 Other States 4/ 25,700 r/ 34,900 r/ 40,100 r/ 34,500 r/ 39,800 r/ 38,400 45,600 289,000	Montana	76,100	7,230	6,910	6,630	7,360	6,780	75,800	5,820 r/
Total 1,640,000 154,000 139,000 121,000 110,000 121,000 1,460,000 109,000 r/ Arizona 16,500 13,100 14,700 15,200 12,100 13,800 13,400 114,000 California 1,440 r/ 1,520 r/ W 1,990 r/ 1,570 r/ 1,990 1,470 11,400 Idaho 14,800 r/ 16,600 r/ 11,300 r/ 16,700 r/ 16,300 r/ 15,700 15,700 121,000 Montana 5,140 r/ W W W W W W 11,000 Nevada 42,600 44,000 39,800 49,400 57,700 52,100 55,900 384,000 Other States 4/ 25,700 r/ 34,900 r/ 40,100 r/ 34,500 r/ 39,800 r/ 38,400 45,600 289,000	Nevada	766,000	73,900	68,900	56,200	49,000	54,800	653,000	42,700
February March April May June July r/ August Jan Aug.	Other States 4/	380,000	38,600 r/	32,900 r/	26,400 r/	24,300 r/	28,800 r/	382,000 r/	30,400 r/
February March April May June July r/ August Jan Aug. Arizona 16,500 13,100 14,700 15,200 12,100 13,800 13,400 114,000 California 1,440 r/ 1,520 r/ W 1,990 r/ 1,570 r/ 1,990 1,470 11,400 Idaho 14,800 r/ 16,600 r/ 11,300 r/ 16,700 r/ 16,300 r/ 15,700 15,700 121,000 Montana 5,140 r/ W W W W W W 11,000 Nevada 42,600 44,000 39,800 49,400 57,700 52,100 55,900 384,000 Other States 4/ 25,700 r/ 34,900 r/ 40,100 r/ 34,500 r/ 39,800 r/ 38,400 45,600 289,000	Total	1,640,000	154,000	139,000	121,000	110,000	121,000	1,460,000	109,000 r/
Arizona 16,500 13,100 14,700 15,200 12,100 13,800 13,400 114,000 California 1,440 r/ 1,520 r/ W 1,990 r/ 1,570 r/ 1,990 1,470 11,400 Idaho 14,800 r/ 16,600 r/ 11,300 r/ 16,700 r/ 16,300 r/ 15,700 15,700 121,000 Montana 5,140 r/ W W W W W W 11,000 Nevada 42,600 44,000 39,800 49,400 57,700 52,100 55,900 384,000 Other States 4/ 25,700 r/ 34,900 r/ 40,100 r/ 34,500 r/ 39,800 r/ 38,400 45,600 289,000					1996 p	/			
California 1,440 r/ 1,520 r/ W 1,990 r/ 1,570 r/ 1,990 1,470 11,400 Idaho 14,800 r/ 16,600 r/ 11,300 r/ 16,700 r/ 16,300 r/ 15,700 15,700 121,000 Montana 5,140 r/ W W W W W W 11,000 Nevada 42,600 44,000 39,800 49,400 57,700 52,100 55,900 384,000 Other States 4/ 25,700 r/ 34,900 r/ 40,100 r/ 34,500 r/ 39,800 r/ 38,400 45,600 289,000		February	March		May	June	July r/	August	Jan Aug.
Idaho 14,800 r/ 16,600 r/ 11,300 r/ 16,700 r/ 16,300 r/ 15,700 15,700 121,000 Montana 5,140 r/ W W W W W W 11,000 Nevada 42,600 44,000 39,800 49,400 57,700 52,100 55,900 384,000 Other States 4/ 25,700 r/ 34,900 r/ 40,100 r/ 34,500 r/ 39,800 r/ 38,400 45,600 289,000	Arizona	16,500	13,100	14,700			13,800	-,	114,000
Montana 5,140 r/ W W W W W W W 11,000 Nevada 42,600 44,000 39,800 49,400 57,700 52,100 55,900 384,000 Other States 4/ 25,700 r/ 34,900 r/ 40,100 r/ 34,500 r/ 39,800 r/ 38,400 45,600 289,000	California	1,440 r/	1,520 r/	W	1,990 r/	1,570 r/	1,990	1,470	11,400
Nevada 42,600 44,000 39,800 49,400 57,700 52,100 55,900 384,000 Other States 4/ 25,700 r/ 34,900 r/ 40,100 r/ 34,500 r/ 39,800 r/ 38,400 45,600 289,000	Idaho	14,800 r/	16,600 r/	11,300 r/	16,700 r/	16,300 r/	15,700	15,700	121,000
Other States 4/ 25,700 r/ 34,900 r/ 40,100 r/ 34,500 r/ 39,800 r/ 38,400 45,600 289,000	Montana	5,140 r/	W	W	W	W	W	W	11,000
	Nevada	42,600	44,000	39,800	49,400	57,700	52,100	55,900	384,000
Total 106,000 r/ 110,000 r/ 106,000 r/ 118,000 r/ 127,000 r/ 122,000 132,000 931,000	Other States 4/	25,700 r/	34,900 r/	40,100 r/	34,500 r/	39,800 r/	38,400	45,600	289,000
	Total	106,000 r/	110,000 r/	106,000 r/	118,000 r/	127,000 r/	122,000	132,000	931,000

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Other States."

^{1/} Data are rounded to three significant digits; may not add to totals shown.

^{2/} Includes annual reporters.

^{3/} Includes Alaska, Colorado, New Mexico, South Carolina, South Dakota, Utah, Wisconsin, and State indicated by symbol "W."

^{4/} Includes Alaska, Colorado, Michigan, Missouri, New Mexico, New York, South Carolina, South Dakota, Utah, Wisconsin, and States indicated by symbol "W."

TABLE 2 SELECTED PRECIOUS METAL PRICES

(Dollars per troy ounce)

	Gold	Silver	Platinum	Palladium
Engelhard Industries:				
1995:				
Year:				
Low/date	373.68 (Jan. 09)	4.39 (Mar. 03)	404.00 (Mar. 02)	130.00
High/date	396.87 (Apr. 19)	6.02 (May 04)	462.00 (May 04)	179.00
Average	385.50	5.21	425.36	153.34
1996:				
July:				
Low/date	382.85/01	5.05/30	391.00/12	133.00
High/date	386.61/31	5.11/12	401.00/31	137.00
Average	384.99	5.14	393.45	133.00
August:				
Low/date	387.71/19	5.02/14	397.00/30	126.00
High/date	391.06/05	5.25/22	405.00/05	134.00
Average	388.71	5.12	400.77	128.82
September:				
Low/date	380.29/30	4.85/23	384.00/30	118.00
High/date	387.91/03	5.18/05	397.00/03	127.00
Average	384.27	5.01	390.50	123.10
Year to date:	•			
Low/date	380.29 (Sept. 30)	4.85 (Sept. 23)	384.00 (Sept. 30)	118.00
High/date	416.16 (Feb. 05)	5.82 (Feb. 02)	433.00 (Feb. 05)	146.00
Average	392.96	5.31	404.03	134.01
Handy and Harman:				
1995:	•			
Average	384.22	5.19	XX	XX
1996:				
July	383.69	5.02	XX	XX
August	387.43	5.11	XX	XX
September	382.97	5.01	XX	XX
Year to date	391.68	5.29	XX	XX
London Final:				
1995:				
Average	384.16	5.22	XX	XX
1996:				
July	383.47	5.06	XX	XX
August	387.35	5.13	XX	XX
September	383.14	5.04	XX	XX
Year to date	391.60	5.31	XX	XX

XX Not applicable.

Source: Platt's Metals Week.

${\bf TABLE~3} \\ {\bf U.S.~IMPORTS~~AND~EXPORTS~OF~GOLD,~BY~COUNTRY~1/}$

(Kilograms of gold content, unless otherwise specified)

G	Ores and	Dore and	Refined	m . 1	Waste and scrap 4/
Country	concentrates 2/	precipitates	bullion 3/	Total	(gross weight)
Imports for consumptiom:					
1995:		0.020	111 000	126,000	1.4.400
Year 1996:	5,020	9,820	111,000	126,000	14,400
		1 1 10	15.500	17.000	1.110
May	197	1,140	15,700	17,000	1,110
June	288	635	8,950	9,880	953
July:					
Brazil			1,180	1,180	
Canada		106	8,470	8,580	219
Chile			688	688	30
Colombia			1,230	1,230	
Dominican Republic	. 		81	81	207
Mexico	273	827	632	1,730	167
Other		96	997	1,090	465
Total	273	1,030	13,300	14,600	1,090
Year to date	2,130	6,290	81,300	89,700	7,520
Exports:	•				
1995:	•				
Year	345	69,700	277,000	347,000 5/	74,700 5/
1996:	•				
May	41	2,730	69,400	72,200	7,700
June	9	8,890	36,900	45,800	6,660
July:			·	·	
Canada	. 12	2,210		2,220	3,070
France	. 1	,		1	1,900
Korea, Republic of			4,830	4,830	
Switzerland		3,790	2,770	6,560	
United Kingdom		1,370	9,680	11,100	589
Other		3	1,900	1,910	528
Total	13	7,370	19,200	26,600	6,090
Year to date	84	31,700	315,000	347,000	57,100

^{1/} Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

 $^{2\!/}$ Includes gold content of base metal ores, concentrates, and matte imported for refining.

^{3/} Bullion also moves in both directions between U.S. markets and foreign stocks on deposit in the Federal Reserve Bank. Monetary gold excluder

^{4/ &}quot;Waste and scrap" not included in "Total."

^{5/} All or part of these data have been referred to the Bureau of the Census for verification.

${\bf TABLE~4} \\ {\bf U.S.~IMPORTS~AND~EXPORTS~OF~SILVER,~BY~COUNTRY~1/}$

(Kilograms of silver content, unless otherwise specified)

	Ores and	Dore and	Refined		Waste and scrap 3/
Country	concentrates 2/	precipitates	bullion	Total	(gross weight)
mports for consumption:		pp			(8
1995:	_				
Year	225,000	395,000	2,630,000	3,250,000	2,140,000
1996:		,	,,	-,,	, .,
May	13,000	11,300	209,000	233,000	151,000
June	20,000	16,200	189,000	226,000	158,000
July:					
Canada		11	88,300	88,300	23,400
Chile		23,700	4,500	28,200	
Dominican Republic					364
Germany					56,000
Malaysia					23,500
Mexico	10,800	457	81,600	92,800	314
Peru			35,100	35,100	
United Kingdom					1,770
Other		813	16,000	16,800	41,800
Total	10,800	25,000	226,000	261,000	147,000
Year to date	80,700	158,000	1,520,000	1,760,000	1,080,000
Exports:	_				
1995:	_				
Year	743	72,100	2,810,000 4/	2,880,000	1,580,000
1996:					
May	60	657	222,000	223,000	157,000
June		834	643,000	644,000	93,100
July:					
Belgium					4,100
Canada		31	15,100	15,200	42,600
China	_				5,240
Germany					12,800
Japan			37,300	37,300	15,600
Switzerland		261	170,000	171,000	
Thailand				240	
United Arab Emirates	_		73,400	73,400	
United Kingdom		239	239,000	239,000	4,730
Other	 _	463	2,060	2,520	1,470
Total	240	994	537,000	538,000	86,500
Year to date		28,900	1,790,000	1,820,000	819,000

^{1/} Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

^{2/} Includes silver content of base metal ores, concentrates, and matte imported for refining.

 $^{3/\ \}mbox{"Waste}$ and scrap" not included in "Total."

 $^{4\!/}$ All or part of these data have been referred to the Bureau of the Census for verification.

${\it TABLE 5} \\ {\it U.S. IMPORTS \ AND EXPORTS \ OF PLATINUM-GROUP METALS, BY COUNTRY \ 1/2} \\$

(Kilograms of metal content, unless otherwise specified)

	Ores and	Waste and scrap	Refined						
Country		(gross weight)	Platinum	Palladium	Rhodium	Iridium	Osmium	Ruthenium	
Imports for consumption: 1995:									
Year	123	6,350	71,500 2/	124,000	9,600	1,450	69	7,520	
1996:	123	0,330	71,300 2/	124,000	9,000	1,430	09	7,320	
May	101	973	4,980	6,790	1170	55		576	
June		188	5,040	12,900	538	257		627	
July:		100	3,040	12,900	336	231		027	
Belgium		72	459	532	65				
Canada		1	26	197					
China				181					
Colombia			26						
Germany		56	710	202	10	1		1	
Japan			47	214	8				
Mexico									
Norway			24	175					
Russia			439	1,650	90				
South Africa			4,560	1,360	569	25	18	596	
Switzerland			109	374	2				
United Kingdom		2	598	478	3	26		16	
Other		132	17			2		5	
Total		263	7,020	5,360	747	54	18	618	
Year to date	101	2,920	42,300	59,000	5,460	994	329	10,600	
Exports:			,						
1995:									
Year	598	8,150	19,900	26,000	742	85 3/			
1996:									
May	16	931	865	1,980	53	17 / 3/			
June	4	908	914	2,410	17	6 3/			
July:									
Belgium		53	281	396					
Canada		23	47	70					
France			4	1	1				
Germany		153	69	45					
Hong Kong	1			4					
Ireland			1						
Japan		53	368	414		13			
Korea, Republic of			144	115	5	1			
Mexico			1	312					
Netherlands			16	115					
Singapore			2	54					
Sweden			3						
Switzerland	7		1	33					
Taiwan			3	134					
United Kingdom		386	103	140	1				
Other		2	176	38		5 3/			
Total	8	670	1,220	1,870	7	19 3/			
Year to date	180	4,460	8,250	14,000	144	78 3/			

r/ Revised.

Source: Bureau of the Census.

 $^{1/\,\}mbox{Data}$ are rounded to three significant digits; may not add to totals shown.

 $^{2\!/}$ Of this amount 1,070 kilograms was in the form of platinum coins.

^{3/} Includes osmium and ruthenium.